

U.S. Patent Application Serial No. 09/884,998
Supplemental Amendment dated January 27, 2004
Reply to OA of October 2, 2003

REMARKS

As indicated above, this is a Supplement to the Amendment under 37 CFR 1.111 filed on December 31, 2003 in response to the Office Action dated October 2, 2003.

Claims 25 and 30 have been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. The applicants respectfully submit that no new matter has been added. It is believed that this Supplemental Amendment and the Amendment filed on December 31, 2004 are fully responsive to the Office Action dated October 2, 2003.

Claims 25 - 33 remain in this application, and claims 1 - 24 having been canceled without prejudice or disclaimer.

At this time, the applicants and their undersigned representative thank Examiner S. Ip for taking the time to conduct a telephone conference with the undersigned on January 22, 2004. Also, the undersigned thanks the Examiner for the courtesy extended to him by the Examiner.

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During such January 22, 2004 telephone conference, the Examiner was respectfully referred to Figures 11 - 13, as attached to the applicants' Preliminary Amendment filed September 25, 2003, and the applicants' undersigned representative discussed these figures as set forth in the Remarks portion of the Preliminary Amendment.

The Examiner then pointed out that such figures have not however been included in the patent application as filed, and thus cannot be relied upon for providing support for the previously amended claims.

It was then pointed out to the Examiner that such Figures 11 - 13 were not submitted for providing support to the claimed invention, but to show the distinguishable features of the applicants' claimed invention (independent claim 25 for Figure 12; independent claim 30 for Figure 13; and Girardello's FIG. 8 for Figure 11) over the teachings of the Girardello patent.

The applicants' undersigned representative then referred the Examiner to line 10, page 14 and lines 7 - 17, page 15 of the applicants' specification, as well as the applicants' claims 25 and 30, as originally filed, for providing the needed support for the claim language amended in the Preliminary Amendment of September 25, 2003.

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In response, the Examiner suggested that language similar to the language in the applicants' specification, as cited above, should be used in the claims (instead of terms such as "intermediate regions"). Ways to highlight, in each of independent claims 25 and 30, the location of the "soft layer" relative to the "core region", "inner circumferential surfaces", and "outer circumferential surfaces" were then discussed with the Examiner.

Below is the claim language discussed during the telephone conference for incorporation into claims 25 and 30, which the Examiner was favorable to:

said core region having a soft layer, said soft layer being between said inner and outer circumferential surfaces, and said soft layer being composed of one or more structures selected from the group consisting of ferrite, pearlite, bainite and martensite which are precipitated during cooling from the quenching temperature.

That is, it is now highlighted in each of independent claims 25 and 30 that: (1) the claimed core region has a soft layer; (2) the claimed soft layer is between the inner and outer circumferential surfaces; and (3) the claimed soft layer is composed of one or more structures selected from the group consisting of ferrite, pearlite, bainite and martensite which are precipitated during cooling from the quenching temperature. As discussed with the Examiner in the above-noted telephone conference of January 22, 2004, support for such claim language can be found in line 10, page 14 and lines 7 - 17, page 15 of the applicants' specification, as well as the applicants' claims 25 and 30, as originally filed.

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In view of the above, the withdrawal of the outstanding rejection under 35 USC 112, first paragraph, is in order, and is therefore respectfully solicited.

As to the merits of this case, the applicants again refer the Examiner to Figures 11 - 13, as attached to the applicants' Preliminary Amendment filed September 25, 2003, and the applicants' discussions of these figures as set forth in the Remarks portion of the Preliminary Amendment. Summarily, Figures 12 and 13 illustrate the subject matters set forth in claims 25 and 30, respectively, and Figure 11 depicts Girardello's FIG. 8.

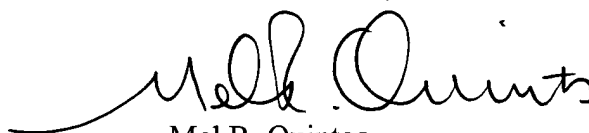
More particularly, the claimed soft layer, specifically recited as between the claimed inner and outer circumferential surfaces, is composed of one or more structures selected from the group consisting of ferrite, pearlite, bainite and martensite which are precipitated during cooling from the quenching temperature. (Please see, Figures 12 and 13 attached to the September 25, 2003 Preliminary Amendment depicting amended claims 25 and 30, respectively.) Such claimed structural arrangements, now set forth in independent claims 25 and 30, are not disclosed in the cited prior art references, singly or in combination. (Please see, Figure 11 attached to the September 25, 2003 Preliminary Amendment depicting Girardello's FIG. 8.)

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In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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